



# Discovery AO 2006 Pre-proposal Conference



February 2, 2006



# Purpose

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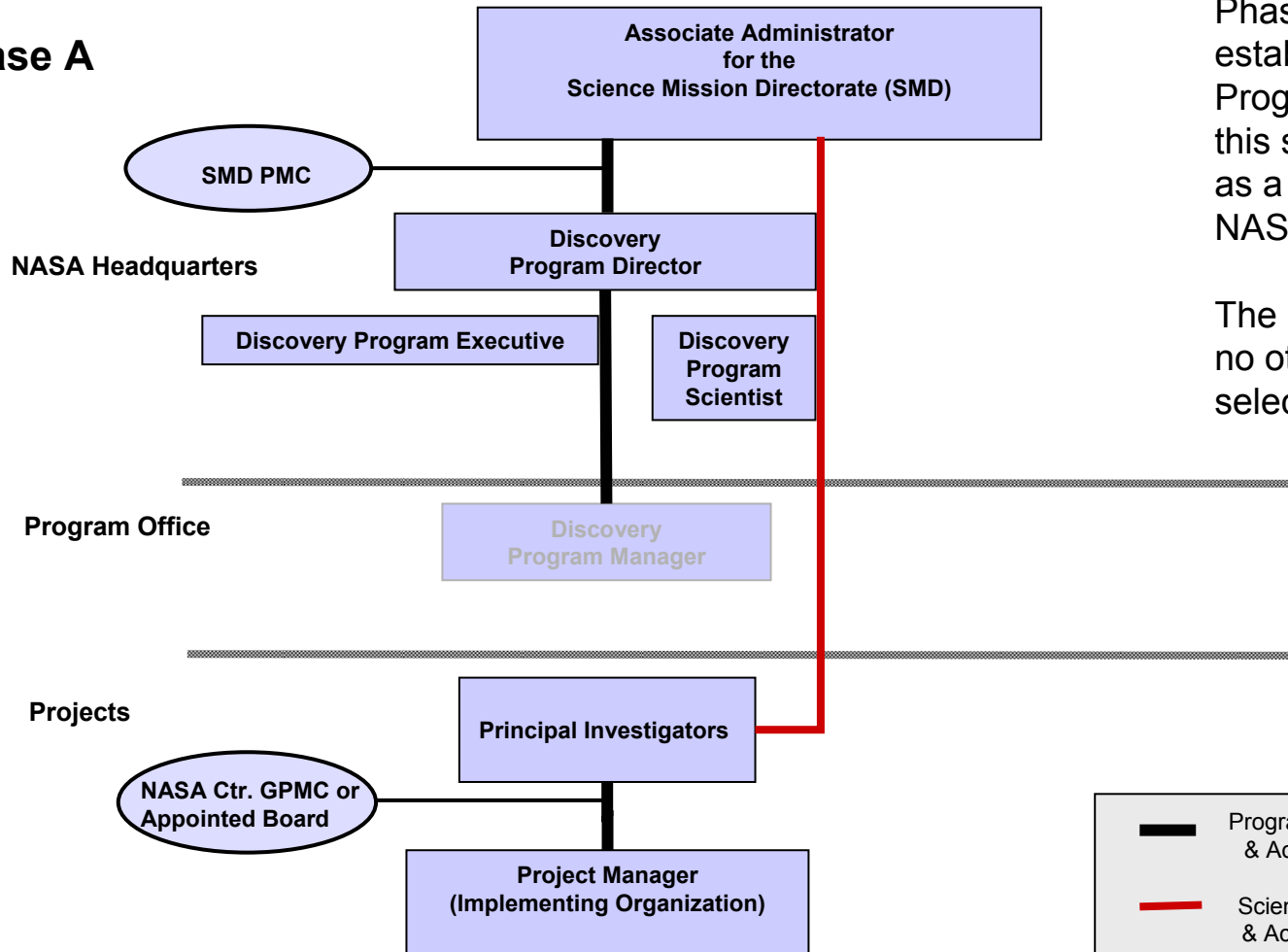
**The Primary Objective of the Discovery Program Office is to enable Principle Investigators and Project Managers to ensure successful missions and maximize science returns**



# Program Lines of Authority



## Phase A



Phase A contracts are established through the Program Office, however this service is performed as a support function to NASA Headquarters.

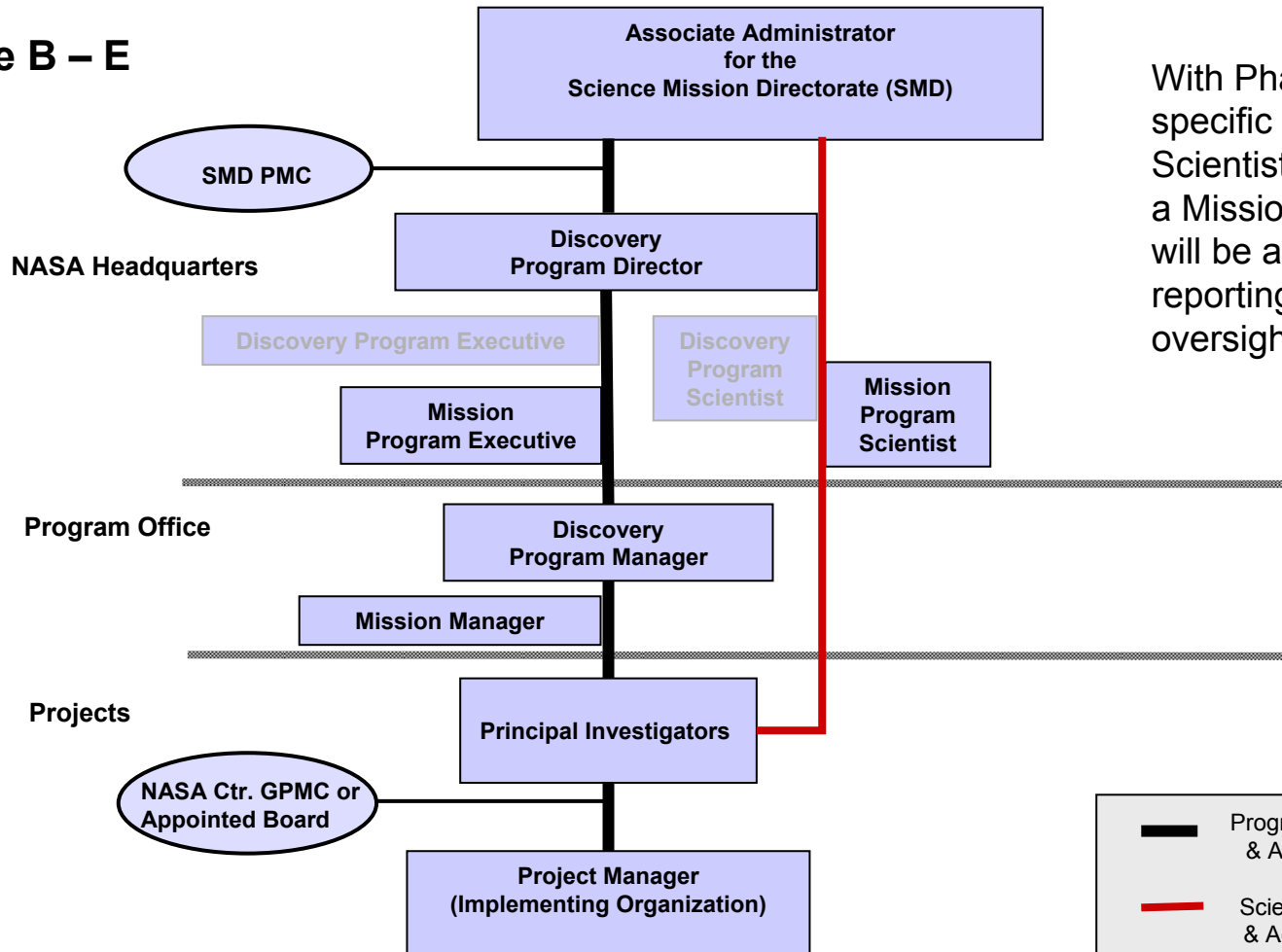
The Program Office has no other role in the selection process.



# Program Lines of Authority



## Phase B – E

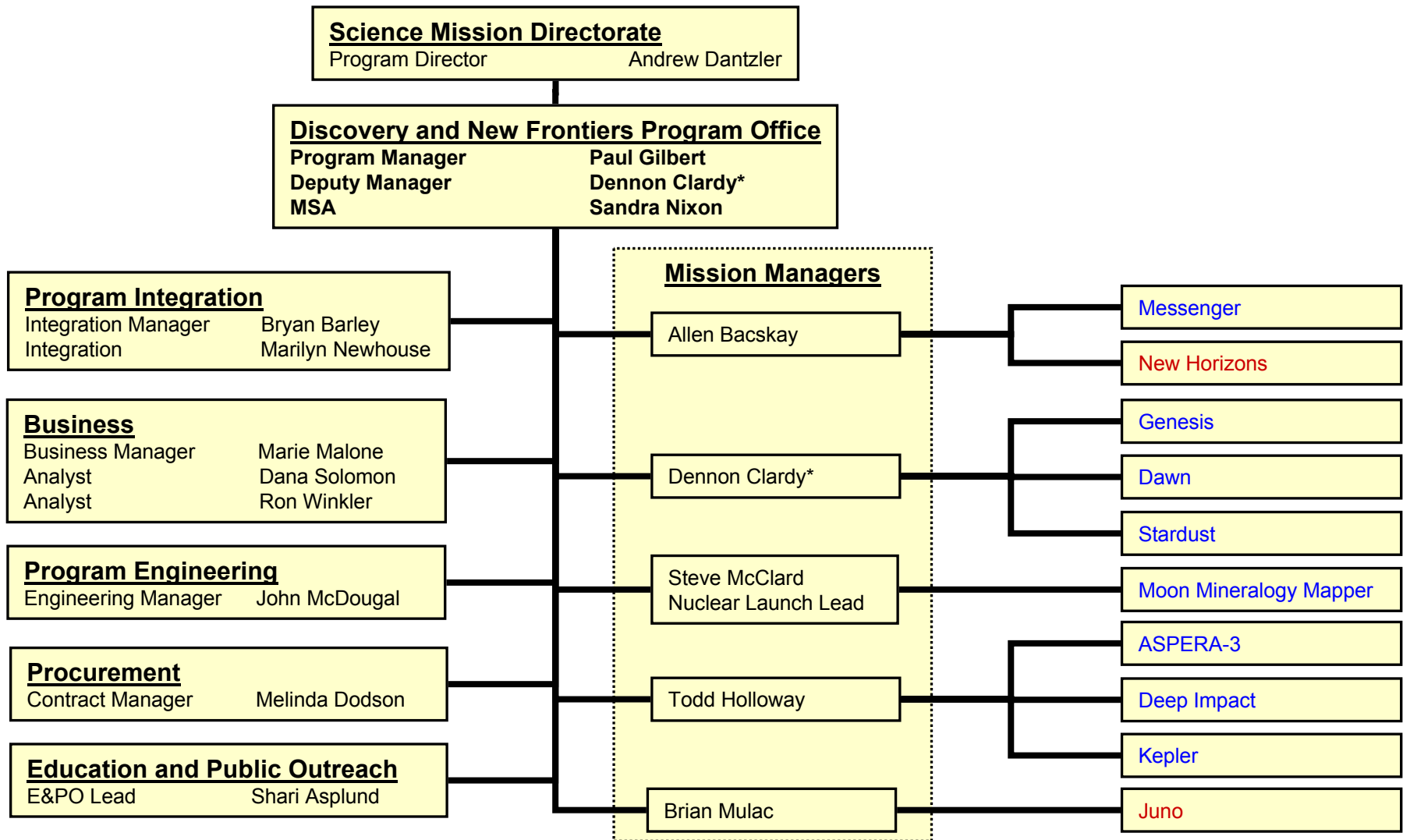


With Phase B, mission specific Program Execs & Scientists at NASA HQ and a Mission Manager at the PO will be assigned to assist the reporting, advocacy and oversight of the project.

**—** Programmatic Reporting & Accountability  
**—** Scientific Reporting & Accountability



# Program Office Organization



\* Dennon Clardy transitioning to deputy manager;  
missions transitioning to other mission managers.

Discovery missions  
New Frontiers missions

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# Roles

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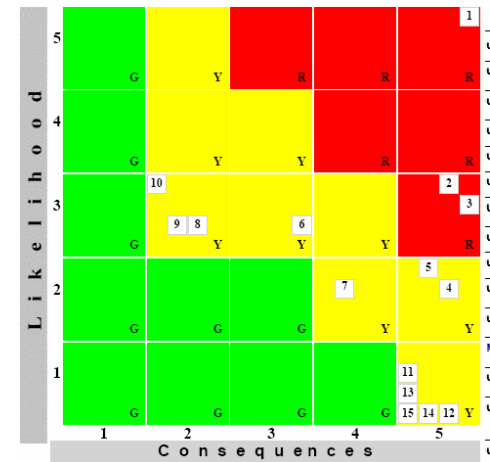
- **After selection, Principal Investigators are responsible to the Program Manager for programmatic success and to the AA for SMD for scientific success**
- **Program Office Mission Managers act on behalf of the Program Manager and are the primary Program Office interface for Principal Investigators and Project Managers**
- **Specific roles are defined in the Discovery Program Plan (DISC-PLAN-001 Rev. A), available on-line in the Discovery Program Library (DPL)**



# Risk Management



- Each project will have a risk management plan consistent with NPR 8000.4, *NASA Risk Management Procedural Requirements*
- The Program Office maintains an independent risk management system that is the basis for the Program's risk-based insight approach
- The risk-based insight approach allows the Program to apply resources in an optimal manner, including:
  - Technical assessments and audits
  - Provide program technical experts as required to support the projects
  - Allocate additional funds for a project led mitigation activity
- Program Office certification of flight readiness of a mission is contingent on closure or acceptance of all Program Risks associated with that mission
- Mission managers are responsible for being cognizant of project managed risks and making projects aware of any unique Program risks associated with the mission



***Discovery Payloads have a Spacecraft Risk Classification of B per NPR 8705.4***



# Contracts / Business Management

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- **Program Office** manages contracts with Principal Investigator organization and implementing organization, if applicable
  - If the organization has an associated NASA Management Office (NMO) the contract is managed by the NMO with input from the Program Office on the project task
- **Program Office** provides Phase A contract support as a service to SMD, however the Program Office is not involved in the selection process
- **Program Business Office** coordinates the annual overall program budget planning activity in conjunction with all Discovery projects
  - Results are documented in a Program Funding Agreement with each Project
- **Missions** are required to provide standard NASA financial reports
- **Missions** are responsible for the overall project budget
  - Information on project by-pass funding (e.g. direct funding to NASA centers) is provided by the Program Office
- **Missions** are required to implement Earned Value Management – developed in phase B, utilized during phase C/D

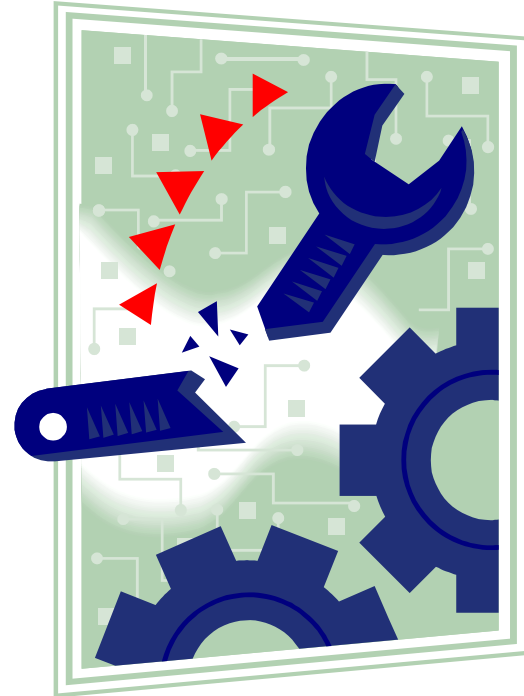




# Areas to Watch



- **Software**
  - Test beds
  - Fault Protection/Autonomy
- **Integrated Project Schedule**
- **Heritage Hardware**
- **Workforce roll off for launch**
  - Optimistic Test Schedules
  - Verification and Validation
- **Vendor Assumptions**
  - Experience
  - Insight/Oversight requirements





# NPR 7120.5C



- **NPR 7120.5C, *NASA Program and Project management Processes and Requirements***
  - ***Establishes the management system for implementing Project Management***
  - **Document available in the DPL**
- **Discovery AO 2006:**
  - **All requirements in the latest version, 7120.5C, are binding.....**
  - **Mission teams have the freedom to use their own processes, procedures, and methods to meet the requirements in 7120.5C.....**
  - **Discovery missions are classified as Category II projects**



# NPR 7120.5C Responsibilities

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- **NPR 7120.C defines required key elements of project management**
  - **Development of a Project Plan (template provided)**
  - **Project planning**
  - **Work Breakdown Structures (WBS)**
  - **Cost estimation and financial controls**
    - **CADRe**
    - **Earned Value Management**
  - **Risk Management**
  - **Project assessment**
  - **Independent Technical Authority engagement**
  - **Project schedule and baseline**
  - **Validation and verification**



# Summary

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- **The Program Office does not become formally involved until after selection**
- **We are here to work with you (after selection) and help you be successful in implementing the mission**
- **The Program Office looks forward to welcoming a new Discovery Mission into the family**
- **Good luck on your proposals!**